

## What is claimed is:

- 1. A method for treating a subject having an autoimmune disorder or inflammatory condition comprising delivering to the subject an effective amount of a compound selected from the group consisting of a 1,5- substituted pyrimidine derivative or analog and a substituted furano-pyrimidone derivative or analog.
- 2. The method of claim 1, wherein the compound is a 1,5-substituted deoxyuridine derivative or analog.
- 3. The method of claim 1, wherein the compound is a substituted furanopyrimidone derivative or analog.
- 4. The method of claim 2, wherein the 1,5-substituted deoxyuridine derivative or analog is a compound selected from the group consisting of a 5'-phosphoramidatyl deoxyuridine, a substituted 5'-phosphoramidyl deoxyuridine, a 5'-phosphoryl deoxyuridine, and a substituted, 5'-phosphoryl deoxyuridine.
- 5. The method of claim 2, wherein the 1,5-substituted deoxyuridine is substituted at the 5 position with a substituent selected from the group consisting of alkyl, alkenyl, alkynyl, vinyl, propargyl and substituted derivatives thereof.
- 6. The method of claim 5, wherein the substituted derivatives are halogen-substituted derivatives.
- 7. The method of claim 6 wherein the halogen-substituted derivative is a 5-haloalkyl substituted deoxyuridine.
- 8. The method of claim 1/2, wherein the compound is 5-bromovinyl substituted deoxyuridine.
- 9. The method of claim 4, wherein the 1,5-substituted deoxyuridine is a 5'-phosphoryl derivative of pyrimidine.
- 10. The method of claim 4, wherein the 1,5-substituted deoxyuridine is a 5'-phosphoramidatyl derivative of pyrimidine.
- 11. The method of claim 10, wherein the a 5'-phosphoramidatyl derivative is (E)-5-(2-bromovinyl)-2'-deoxy-5'-uridyl phenyl L-alaninylphosphoramidate.
- 12. The method of claim 1, wherein the subject has an autoimmune disease.
- 13. The method of claim 12, wherein the autoimmune disease is selected from the group consisting of multiple sclerosis, Type 1 diabetes, glomerulonephotis systemic lupus erythematosus, rheumatoid arthritis psoriatic arthritis, reactive arthritis, Sjögren's



syndrome, graft-versus-host disease (GVHD), muscular dystrophy, myasthenia gravis, atherosclerosis and osteoarthritis.

- 14. The method of claim 1, wherein the subject has an inflammatory condition.
- 15. The method of claim 14, wherein the inflammatory condition is selected from the group consisting of psoriasis, ulcerative colitis, scleroderma, inflammatory bowel disease, asthma, and Crohn's disease.
- 16. The method of claim 1, further comprising administering an effective amount of an agent that treats an autoimmune and/or inflammatory condition.
- 17. The method of claim 16, wherein the agent is selected from the group consisting of a corticosteroid, a N-SAID, an anti-rheumatic drug and an anti-TNF agent.
- 18. A method for treating cells or tissue involved in a pathology selected from the group consisting of an autoimmune disease and an inflammatory condition, comprising contacting the cells or tissue with an effective amount of a compound selected from the group consisting of a 1,5- substituted pyrimidine derivative or analog and a substituted furano-pyrimidone derivative or analog thereof.
- 19. The method of claim 18, wherein the compound is (E)-5-(2-bromovinyl)-2'-deoxy-5'-uridyl phenyl L-alaninylphosphoramidate.
- 20. An assay for selecting agents that treat cells or tissue involved in a pathology selected from the group consisting of an autoimmune disease and an inflammatory condition, comprising contacting a first sample comprising suitable cells or tissue with an effective amount of a compound selected from the group consisting of a deoxyuridine, a substituted deoxyuridine, a substituted deoxyuridine derivative and analogs thereof and contacting a second sample of the suitable cells or tissue with the agent to be assayed and comparing the treatment of the first and second samples.
- 21. The assay of claim 20, further comprising contacting the agent with a third sample of cells or tissue comprising normal counterpart cells or tissue to the second sample and selecting agents that treat the second sample of cells or tissue but does not adversely effect the third sample.
- 22. The assay of claim 21, wherein the substituted deoxyuridine derivative is (E)-5-(2-bromovinyl)-2'-deoxy-5'-uridyl phenyl L-alaninylphosphoramidate.